

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: February 5, 1997
Date Received: January 30, 1997
Project: 7238, Metro Self Monitor, PO #M56001
Date Samples Extracted: January 31, 1997
Date Extracts Analyzed: February 4, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, ZINC
USING METHOD 6010**

Samples Processed Using Method 3005M
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56001	0.77	1.0	0.80	0.11
Method Blank	<0.05	<0.05	<0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 75484 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	0.77	0.75	3	0-20
Copper	mg/L (ppm)	1.0	1.0	0	0-20
Nickel	mg/L (ppm)	0.80	0.81	1	0-20
Zinc	mg/L (ppm)	0.11	0.11	0a	0-20

Laboratory Code: 75484 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	0.77	109	100	80-120	9
Copper	mg/L (ppm)	5	1.0	111	92	80-120	19
Nickel	mg/L (ppm)	10	0.80	106	106	80-120	0
Zinc	mg/L (ppm)	5	0.11	107	109	80-120	2

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Chromium	mg/L (ppm)	5	112	111	80-120	1
Copper	mg/L (ppm)	5	107	106	80-120	1
Nickel	mg/L (ppm)	10	110	109	80-120	1
Zinc	mg/L (ppm)	5	112	112	80-120	0

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

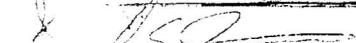

Jan 5 1:30-9:1
1:30A

To: Alaskan Copper Works Contact: Gerald Thompson
1023 Hanford 59
 Zip: Seattle WA 98134
(206) 582 8379 Date: 1-30-97

PROJECT NAME		PURCHASE ORDER #
7238	METRO Self monitor	M 56001
(signature)		PROJECT LOCATION
A. J. [Signature]		3200 6th Ave

SAMPLE DISPOSAL INFORMATIC	
<input type="checkbox"/>	Dispose after 30 days
<input checked="" type="checkbox"/>	Return Samples
<input type="checkbox"/>	Call for Instructions

[illegible]

Signature	PRINT NAME	COMPANY	Date	
	GERARD A. Thorge	ACW	1/30/97	11.
	S. Oborn	F+B, Inc.	1/30/97	12.
by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

February 5, 1997

INVOICE # 97ACU0205-1
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

RE: Project 7238, Metro Self Monitor, PO #M56001: Results of testing requested
by Gerry Thompson, Project Manager for material submitted on January 30,
1997.

1 water sample analyzed for
Chromium, Copper, Nickel, Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID # (b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

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TEL: (206) 285-8282
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February 5, 1997

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on January 30, 1997 from your 7238, Metro Self Monitor, PO #M56001 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Kurt Johnson
Chemist

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Enclosures
ACU0205R.DOC